

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A data network for communicating data between a sender unit and a receiver unit, comprising:

a core network including relay elements intercoupled by data links divided into a plurality of bandwidths;

a gateway element coupled to the core network and to the sender unit, the receiver unit being coupled to the core network, the gateway element having at least one information table identifying at least one route from the gateway element through the core network to the receiver unit, including data links which constitute the at least one route, allocations of predetermined communication resources of the data links per each of the bandwidths, and status information indicative of an amount of currently used communication resources of the data links per each of the bandwidths and an amount of currently available communication resources of the data links per each of the bandwidths; and

a trunk management system ,wherein the gateway element periodically sends the status information to the trunk management system,

wherein the a trunk management system allocates the bandwidth of the predetermined communication resources of the data links.

2. (Previously Presented) A method of management of data communication through a core network between a sender unit and a receiver unit that includes the steps of:

defining at least one communicative route through the core network between the sender unit and the receiver unit that includes a plurality of network links that each have a predetermined communication resource;

coupling the sender unit and the receiver unit to the core network with sending and receiving gateway elements, respectively;

allocating to the sending gateway element a first portion of the predetermined communication resources of at least certain of the network links forming a communicative route between the sending and receiving gateway elements, and maintaining at the sending gateway element information indicative of the allocated predetermined communication resources and status information indicative of a currently used amount of the allocated communication resources and a currently available amount of the allocated communication resources;

receiving at the sending gateway element a request from the sender unit for a data transfer across the communicative route, the request including a specification of requested communication resource, the sending gateway element checking the status information to grant the request if the currently available amount of the allocated communication resources of the communicative route is equal or greater than the requested communication resource.

3. (Previously Presented) The method of claim 2, including allocating a second portion of the predetermined communication resource to said certain of the network links.

4. (Currently Amended) The method of claim 3, wherein the step of checking the status information includes reconfiguring the predetermined communicative resource to said certain of the network links to re-allocate at least a portion of the communicative resource allocated to the receiving gateway element to the sending gateway element.

5. (Previously Presented) The method of claim 2, wherein the predetermined communication resource is a communication bandwidth.

6. (Previously Presented) The method of claim 2, wherein the predetermined communication resource includes a communication bandwidth.

7. (Currently Amended) A method of admission control of data to a core network having a number of relay nodes interconnected by data links, the method including the steps of:

associating a predetermined data communication capacity with each of the data communicating links;

communicatively coupling sending and receiving gateway elements to the core network;

connecting first and second data transfer elements to the sending and receiving gateway elements, respectively, for data communication by a route through the core network containing certain of the data links;

assigning first and second portions of the data communication capacity of at least the certain of the data links to the sending and receiving gateway elements, respectively; and

providing the sending gateway element with information indicative of the first portion, the sending gateway element responding to a request for data communication of a requested capacity from the first data transfer element by checking the information, determining status information indicative of currently used data communication capacity of the certain links per each of the first portions and currently available data communication capacity of the certain links per each of the first portions, and granting the request if the currently available data communication capacity of the certain data links per each of the first portions is at least equal to or greater than the requested capacity,

wherein the sending gateway element periodically sends the status information to a trunk management system,

wherein the trunk management system allocates bandwidth to the certain links of the route based on the status information indicative of currently used data communication capacity of the certain links per each of the first portions and currently available data communication capacity of the certain links per each of the first portions.

8. (Previously Presented) The method of claim 7, wherein the providing step includes re-assigning at least a part of the second portion to the first portion of the data communication capacity of at least one of the certain data links.

9. (Original) The method of claim 8, including the step of providing the receiving gateway element with information indicative of the second portion.

10. (Original) The method of claim 9, wherein the step of re-assigning includes decreasing the information indicative of the second portion by the part of the second portion re-assigned to the first portion.

11. (Original) The method of claim 10, wherein the step of re-assigning includes increasing the information indicative of the first portion by the part of the second portion re-assigned to the first portion.

12. (Currently Amended) A system for providing a QoS communication route from a first communicating entity to a second communicating entity through a core network that includes a plurality of network links, the system including;

a data store comprising an information table of information indicative of a predetermined communication resource associated with each network link;

a sending gateway element and a receiving gateway element respectively coupling the first and second communicating entities to the core network;

wherein the sending gateway element is configured to be assigned a first portion of the predetermined communication resources of at least certain of the network links forming a communicative route between the sending and receiving gateway elements, and to maintain at the sending gateway element information indicative of the allocated predetermined communication resources assigned first portion and status information indicative of a currently used amount of the allocated communication resources assigned first portion and a currently available amount of the allocated communication resources assigned first portion; and

wherein the sending gateway element is configured to receive a request from the sender unit for a data transfer across the communicative route, the request including a specification of requested communication resource;

the sending gateway element checking the status information to grant the request if the currently available amount of the allocated communication resources assigned first portions of the predetermined communications resources of the communicative route is equal or greater than the requested communication resource.

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13-16. (Canceled)